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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,477	12/31/1998	ROBERT C. DIXON	239/104	3646

22249 7590 09/25/2002

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LOS ANGELES, CA 90071

EXAMINER

MOORE, JAMES K

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/224,477

Applicant(s)

DIXON, ROBERT C.

Examiner

James K Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Prosecution Application

1. The request filed on August 8, 2000 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/224,477 is acceptable and a CPA has been established. An action on the CPA follows.

2. Prosecution on the merits of this application is reopened on claims 17-21 considered unpatentable for the reasons indicated below.

The indicated allowability of claims 17-21 is withdrawn in view of the newly discovered reference(s) to Schmidt (U.S. Patent No. 4,765,753). Rejections based on the newly cited reference(s) follow.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s): a base station transmitting over a first frequency and user stations transmitting over a second frequency different from the first frequency. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 17 is objected to because of the following informalities: in line 13, "staitons" should be corrected to read "stations". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 18, 20, and 21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 18 and 21, the applicant describes two embodiments of his invention, (1) and (2) on pages 10 and 11, which comprise a base station transmitting over a first frequency and user stations communicating over a second frequency different than the first frequency. The applicant also describes a third embodiment (3) on page 11 which comprises a base station communicating with the user stations using time division duplexing. However, in this embodiment, the base station and the user stations use a single frequency. Thus, the specification does not provide support for a single embodiment of the invention in which the base station and user stations transmit

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using two different frequencies and the base station communicates with the user stations using time division duplexing.

Regarding claim 20, the specification does not provide adequate support for the limitation "wherein said user stations in said first cell are assigned a second set of one or more distinct spreading codes".

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt.

Regarding claim 17, Schmidt discloses a multiple user wireless communication system comprising a plurality of cells. A base station is located in each cell.

Transmitters in a first cell (at the base station) are assigned a first code for modulating radio communication in the first cell. Radio signals used in the first cell are spread across a bandwidth, and receivers in a second cell adjacent to the first cell may distinguish communication which originates in the first cell from communication which originates in the second cell (based on the use of different codes). The first cell is not adjacent to any other cell using the first code. The base station transmits over a first

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frequency (a broadband) and user stations in communication with the base station transmit over a second frequency (narrow bands) different from the first frequency).

See col. 2, lines 26-35 and col. 3, lines 1-8.

Regarding claim 19, Schmidt discloses a wireless communication system comprising a plurality of cells, a base station, and a plurality of user stations. The base station is assigned a first transmission frequency (a broadband) for transmitting to a first cell. The first transmission frequency is not assigned to any base station for transmitting to any cell adjacent the first cell. The user stations in the first cell are assigned a second transmission frequency (narrow band). The second transmission frequency is not assigned to any user stations in any cell adjacent the first cell. The base station and the user stations in the first cell are assigned distinct codes for modulating radio communication for the first cell. See col. 2, line 26 through col. 3, line 8.

Regarding claim 20, Schmidt discloses all of the limitations of claim 19, and also discloses that the base station is assigned a set of distinct spreading codes for communicating with user stations in the first cell, and that the set of spreading codes is not assigned to any base station for communicating in any cell adjacent the first cell. See col. 2, lines 26-35.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt in view of well known prior art.

Regarding claims 18 and 21, Schmidt discloses all of the limitations of claims 17 and 19, but does not disclose that the base station communicates with the user stations using time division duplexing. However, the examiner takes official notice that it is well known in the art that time division duplexing allows a transmit channel and a receive channel to be use a common frequency band, thereby conserving bandwidth and increasing user capacity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmidt, such that the base station communicates with the user stations using time division duplexing, in order to increase the user capacity of the wireless system.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Moore, whose telephone number is (703) 308-6042. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached at (703) 308-6739.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ken Moore

9/18/02

JKM

Nguyen Vb
9/20/02

NGUYENT.VO
PRIMARY EXAMINER